WHAT IS CLAIMED IS:

1. A coordinate input apparatus which calculates position coordinates of a coordinate input pointing tool with respect to a coordinate input surface, comprising:

calculation means for calculating the position coordinates of the coordinate input pointing tool;

change means for changing the position coordinates on the basis of predetermined coordinates related to a distance between the coordinate input surface and the coordinate input pointing tool; and

output means for outputting the position coordinates changed by said change means.

2. The apparatus according to claim 1, wherein said change means changes the position coordinates by multiplying the position coordinate values by a predetermined coefficient on the basis of the coordinates related to the distance between the coordinate input surface and the coordinate input pointing tool.

3. The apparatus according to claim 1, further comprising interpolation means for interpolating the position coordinates changed by said change means.

4. The apparatus according to claim 1, wherein the coordinate input pointing tool further comprises ultrasonic wave generation means for generating an ultrasonic wave to input a position to the coordinate

input surface.

5. A coordinate input apparatus which calculates position coordinates of a coordinate input pointing tool with respect to a coordinate input surface on which an X-Y plane and a Z-axis with respect to the X-Y plane are defined, comprising:

calculation means for calculating the position coordinates (X,Y,Z) of the coordinate input pointing tool;

determination means for determining an operative state of a predetermined switch of the coordinate input pointing tool;

comparison means for comparing a predetermined value with a Z-coordinate value of the (X,Y,Z) coordinate values calculated by said calculation means, on the basis of a determination result of said determination means; and

control means for controlling output of the position coordinates (X,Y,Z) calculated by said calculation means, on the basis of the determination result of said determination means or the determination result of said determination means and a comparison result of said comparison means.

6. The apparatus according to claim 5, wherein said control means determines a coordinate output form of the position coordinates (X,Y,Z) calculated by said calculation means, on the basis of the determination

result of said determination means or the determination result of said determination means and the comparison result of said comparison means.

7. The apparatus according to claim 6, wherein the coordinate output form includes

a first coordinate output form in which at least (X,Y) coordinate values of the position coordinates (X,Y,Z) calculated by said calculation means are output, and

a second coordinate output form in which differential coordinate values (X,Y,Z) as differences between predetermined position coordinates calculated by said calculation means and position coordinates (X,Y,Z) calculated by said calculation means later as the coordinate input pointing tool moves are output.

8. The apparatus according to claim 5, wherein said control means determines a presence/absence of the output of the position coordinates on the basis of the determination result of said determination means or the determination result of said determination means and the comparison result of said comparison means.

9. The apparatus according to claim 5, wherein when the determination result of said determination means indicates that the predetermined switch is in the operative state, said control means outputs at least (X,Y) coordinate values of the position coordinates (X,Y,Z) calculated by said calculation means.

10. The apparatus according to claim 5, wherein when the determination result of said determination means indicates that the predetermined switch is not in the operative state, and the comparison result of said comparison means indicates that the Z-coordinate value is not more than the predetermined value, said control means outputs at least (X,Y) coordinate values of the position coordinates (X,Y,Z) calculated by said calculation means.

11. The apparatus according to claim 5, wherein

the apparatus further comprises

storage means for storing the predetermined position coordinates (X,Y,Z) calculated by said calculation means as first position coordinates, and

difference calculation means for calculating differences between the first coordinate values (X,Y,Z) stored in said storage means and position coordinates (X,Y,Z) calculated by said calculation means later as the coordinate input pointing tool moves, and

when the determination result of said determination means indicates that the predetermined switch is not in the operative state, and the comparison result of said comparison means indicates that the Z-coordinate value is not less than the predetermined value, said control means outputs the differential coordinate values (X,Y,Z) obtained by said difference calculation means.

12. The apparatus according to claim 11, wherein

the apparatus further comprises continuous input state determination means for determining on the basis of a coordinate calculation sampling rate of said calculation means whether input by the coordinate input pointing tool is in a continuous input state, and

the predetermined position coordinates are first coordinate values of effective coordinate values during the continuous input state based on the determination result of said continuous input state determination means.

13. The apparatus according to claim 5, wherein when the determination result of said determination means indicates that the predetermined switch is in the operative state, and the comparison result of said comparison means indicates that the coordinate value equals the predetermined value, said control means does not output the position coordinates (X,Y,Z) calculated by said calculation means.

14. A coordinate input pointing tool of a coordinate input apparatus having a coordinate input surface on which an X-Y plane and a Z-axis with respect to the X-Y plane are defined, comprising:

a first switch which is arranged at a distal end portion and can be pressed;

at least two, second and third switches which are arranged on a housing of the coordinate input pointing

tool; and

production means for producing a first control signal when at least one of said second and third switches is in an operative state and producing a second control signal when both of said second and third switches are in the operative state.

15. The tool according to claim 14, wherein said production means produces the first control signal when the first switch is in the operative state.

16. The tool according to claim 14, wherein said second and third switches are arranged adjacent to each other in parallel to an axis of the housing.

17. The tool according to claim 14, wherein said second and third switches are arranged adjacent to each other along an axis of the housing.

18. A control method of a coordinate input apparatus which calculates position coordinates of a coordinate input pointing tool with respect to a coordinate input surface, comprising:

a calculation step of calculating the position coordinates of the coordinate input pointing tool;

a change step of changing the position coordinates on the basis of predetermined coordinates related to a distance between the coordinate input surface and the coordinate input pointing tool; and

an output step of outputting the position coordinates changed in the change step.

19. A control method of a coordinate input apparatus which calculates position coordinates of a coordinate input pointing tool with respect to a coordinate input surface on which an X-Y plane and a Z-axis with respect to the X-Y plane are defined, comprising:

a calculation step of calculating the position coordinates (X,Y,Z) of the coordinate input pointing tool;

a determination step of determining an operative state of a predetermined switch of the coordinate input pointing tool;

a comparison step of comparing a predetermined value with a Z-coordinate value of the (X,Y,Z) coordinate values calculated in the calculation step, on the basis of a determination result in the determination step; and

a control step of controlling output of the position coordinates (X,Y,Z) calculated in the calculation step, on the basis of the determination result in the determination step or the determination result in the determination step and a comparison result in the comparison step.

20. A program which causes a computer to control a coordinate input apparatus which calculates position coordinates of a coordinate input pointing tool with respect to a coordinate input surface, comprising:

a program code for a calculation step of

calculating the position coordinates of the coordinate input pointing tool;

a program code for a change step of changing the position coordinates on the basis of predetermined coordinates related to a distance between the coordinate input surface and the coordinate input pointing tool; and

a program code for an output step of outputting the position coordinates changed in the change step.

21. A program which causes a computer to control a coordinate input apparatus which calculates position coordinates of a coordinate input pointing tool with respect to a coordinate input surface on which an X-Y plane and a Z-axis with respect to the X-Y plane are defined, comprising:

a program code for a calculation step of calculating the position coordinates (X,Y,Z) of the coordinate input pointing tool;

a program code for a determination step of determining an operative state of a predetermined switch of the coordinate input pointing tool;

a program code for a comparison step of comparing a predetermined value with a Z-coordinate value of the (X,Y,Z) coordinate values calculated in the calculation step, on the basis of a determination result in the determination step; and

a program code for a control step of controlling

output of the position coordinates (X,Y,Z) calculated in the calculation step, on the basis of the determination result in the determination step or the determination result in the determination step and a comparison result in the comparison step.